

# OUR DIFFERENCE? THE DETAIL.

**3 YEAR  
WARRANTY**

S3



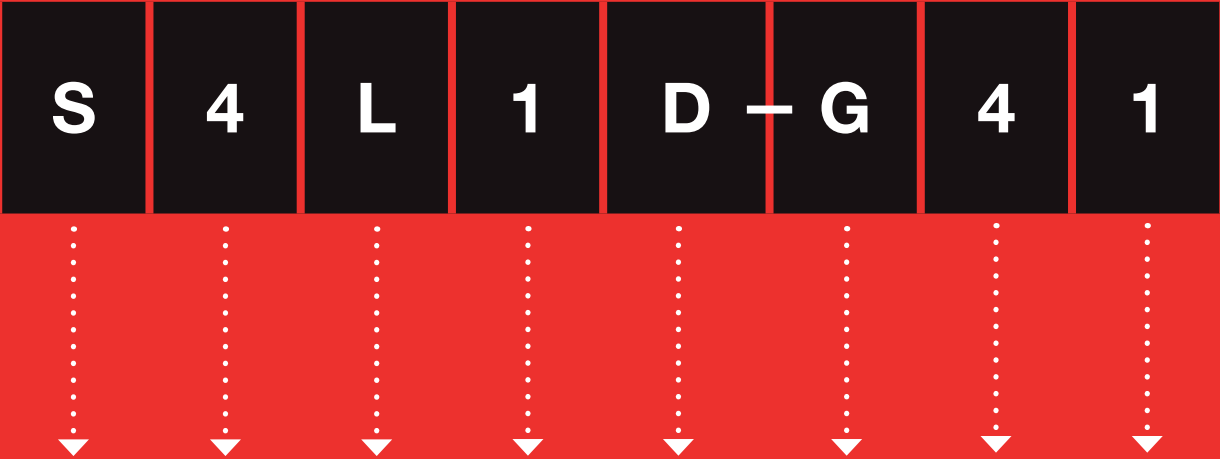
S5



**STAMFORD® S4**

Fitted with  
**CoreCooling™**  
technology

# The S4 Nomenclature

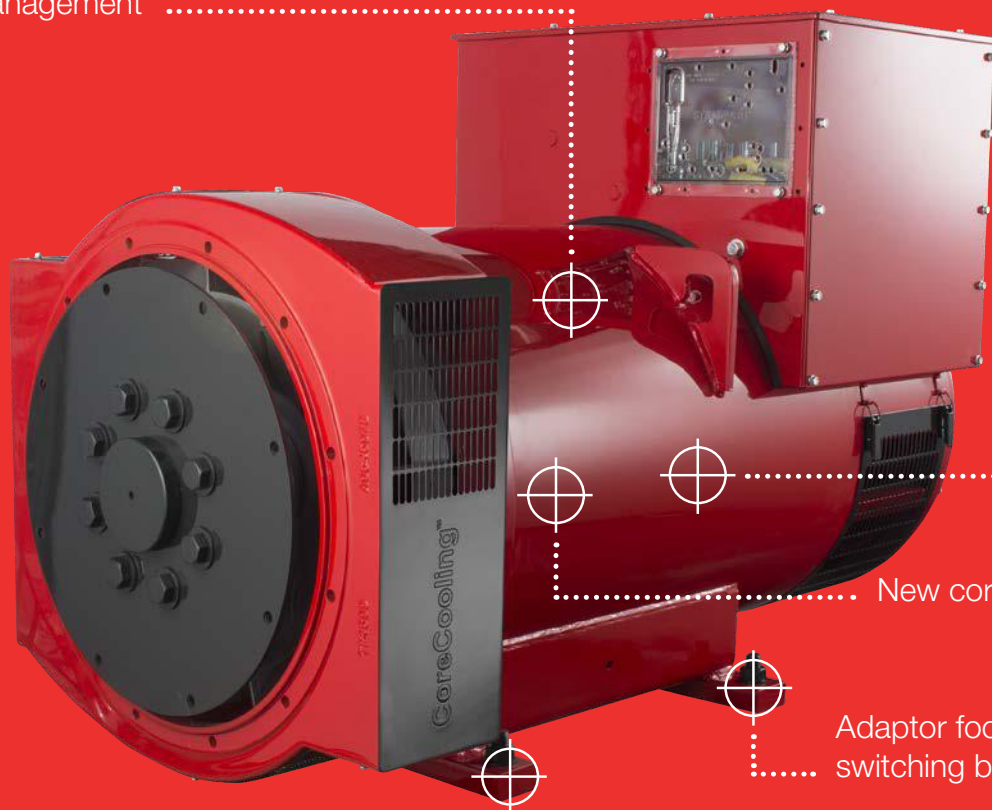


| Character | Brand    | Family Series | Voltage                           | Revision | Descriptor                                 | Core Length | Pole | Bearing |
|-----------|----------|---------------|-----------------------------------|----------|--------------------------------------------|-------------|------|---------|
| Examples  | STAMFORD | 1/2/3/4/5 etc | L = Low<br>M = Medium<br>H = High | 1        | D = Dedicated<br>S = Special<br>M = Marine | C/D/E/F/G   | 4    | 1/2     |

# STAMFORD® S4 Dedicated



Enhanced thermal  
management .....



Optimised  
power  
density core

..... New core length, 450kVA

Adaptor foot option, enabling  
switching between S4 & S5

Flexible foot option, enabling switching  
between alternative brands

Product evolution through technological revolution.  
Our new **CoreCooling™ technology** results in improved thermal performance  
and increased power density... it's in the detail.

# S4 Dedicated Ratings

## 50Hz

| Class H 125/40 |     |     |     |     |     |     |
|----------------|-----|-----|-----|-----|-----|-----|
| Winding Number |     | 311 |     |     |     |     |
| Volts          | 380 |     | 400 |     | 415 |     |
| Model          | kW  | kVA | kW  | kVA | kW  | kVA |
| S4L1D-C4       | 200 | 250 | 208 | 260 | 208 | 260 |
| S4L1D-D4       | 240 | 300 | 248 | 310 | 248 | 310 |
| S4L1D-E4       | 280 | 350 | 288 | 360 | 288 | 360 |
| S4L1D-F4       | 320 | 400 | 332 | 415 | 332 | 415 |
| S4L1D-G4       | 344 | 430 | 360 | 450 | 360 | 450 |

| Standby 150/40 |     |     |     |     |     |     |
|----------------|-----|-----|-----|-----|-----|-----|
| Winding Number |     | 311 |     |     |     |     |
| Volts          | 380 |     | 400 |     | 415 |     |
| Model          | kW  | kVA | kW  | kVA | kW  | kVA |
| S4L1D-C4       | 216 | 270 | 224 | 280 | 224 | 280 |
| S4L1D-D4       | 256 | 320 | 264 | 330 | 264 | 330 |
| S4L1D-E4       | 296 | 370 | 308 | 385 | 308 | 385 |
| S4L1D-F4       | 332 | 415 | 356 | 445 | 356 | 445 |
| S4L1D-G4       | 364 | 455 | 384 | 480 | 384 | 480 |

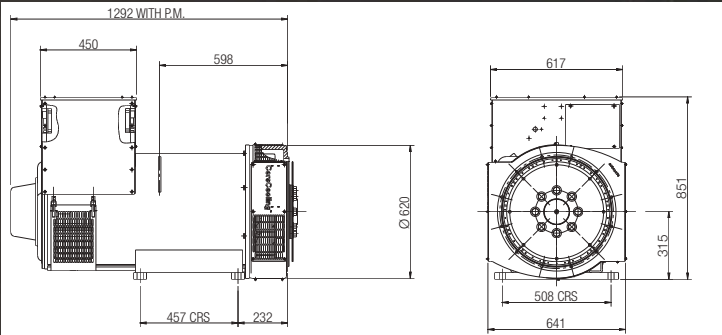
| Standby 163/27 |     |     |     |     |     |     |
|----------------|-----|-----|-----|-----|-----|-----|
| Winding Number |     | 311 |     |     |     |     |
| Volts          | 380 |     | 400 |     | 415 |     |
| Model          | kW  | kVA | kW  | kVA | kW  | kVA |
| S4L1D-C4       | 220 | 275 | 228 | 285 | 228 | 285 |
| S4L1D-D4       | 264 | 330 | 272 | 340 | 272 | 340 |
| S4L1D-E4       | 304 | 380 | 332 | 415 | 320 | 400 |
| S4L1D-F4       | 340 | 425 | 372 | 465 | 364 | 455 |
| S4L1D-G4       | 380 | 475 | 400 | 500 | 400 | 500 |

## 60Hz

| Class H 125/40 |     |     |     |     |     |     |
|----------------|-----|-----|-----|-----|-----|-----|
| Winding Number |     | 311 |     |     |     |     |
| Volts          | 416 |     | 440 |     | 480 |     |
| Model          | kW  | kVA | kW  | kVA | kW  | kVA |
| S4L1D-C4       | 230 | 288 | 248 | 310 | 260 | 325 |
| S4L1D-D4       | 275 | 344 | 296 | 370 | 312 | 390 |
| S4L1D-E4       | 320 | 400 | 348 | 435 | 364 | 455 |
| S4L1D-F4       | 364 | 455 | 400 | 500 | 416 | 520 |
| S4L1D-G4       | 400 | 500 | 428 | 535 | 448 | 560 |

| Standby 150/40 |     |     |     |     |     |     |
|----------------|-----|-----|-----|-----|-----|-----|
| Winding Number |     | 311 |     |     |     |     |
| Volts          | 416 |     | 440 |     | 480 |     |
| Model          | kW  | kVA | kW  | kVA | kW  | kVA |
| S4L1D-C4       | 240 | 300 | 264 | 330 | 280 | 350 |
| S4L1D-D4       | 292 | 365 | 320 | 400 | 332 | 415 |
| S4L1D-E4       | 336 | 420 | 368 | 460 | 380 | 475 |
| S4L1D-F4       | 388 | 485 | 428 | 535 | 444 | 555 |
| S4L1D-G4       | 428 | 535 | 460 | 575 | 480 | 600 |

| Standby 163/27 |     |     |     |     |     |     |
|----------------|-----|-----|-----|-----|-----|-----|
| Winding Number |     | 311 |     |     |     |     |
| Volts          | 416 |     | 440 |     | 480 |     |
| Model          | kW  | kVA | kW  | kVA | kW  | kVA |
| S4L1D-C4       | 248 | 310 | 276 | 345 | 284 | 355 |
| S4L1D-D4       | 300 | 375 | 328 | 410 | 344 | 430 |
| S4L1D-E4       | 348 | 435 | 376 | 470 | 392 | 490 |
| S4L1D-F4       | 400 | 500 | 440 | 550 | 460 | 575 |
| S4L1D-G4       | 452 | 565 | 480 | 600 | 500 | 625 |



# Specification

| MODEL                          | S4-Dedicated             |
|--------------------------------|--------------------------|
| Ratings at 50Hz (kVA) Class H  | 250-450                  |
| Ratings at 60Hz (kVA) Class H  | 288-560                  |
| Specifications                 |                          |
| Voltage Range                  | 380-480                  |
| Poles                          | 4                        |
| Technology                     | Wire Wound               |
| AVR                            | Analogue                 |
| Voltage Sensing                | 2 Phase                  |
| Bearing Arrangement            | Single                   |
| SAE Adaptors                   | SAE 1                    |
| Terminals                      | 12                       |
| Material Insulation Class      | H                        |
| Excitation System              | Self Exciting            |
| Ingress Protection             | IP23                     |
| Connection with other machines | Paralleling capability   |
| Optional Features              |                          |
| Bearing Arrangement            | -                        |
| SAE Adaptors                   | 0.5                      |
| Excitation System              | PMG                      |
| Ingress Protection             | IP23 Air Filters         |
| Output Configurations          | 1 Phase Reconnectable    |
| Voltage sensing                | 3 Phase sensing          |
| Temperature Monitoring         | Winding RTDs             |
| Temperature Monitoring         | Thermistors              |
| Environmental Protection       | Anti-Condensation Heater |
| Adaptor Feet                   | ✓                        |
| Flexible Feet                  | ✓                        |
| Prime Movers                   |                          |
| Diesel Engine                  | ✓                        |
| Gas Engine                     | ✓                        |

# Accessories

| Factory Build Options                             |
|---------------------------------------------------|
| Anti-Condensation Heater (with Terminal Box)      |
| Quadrature Droop kit                              |
| Bearing RTD                                       |
| Air Inlet Filter                                  |
| Remote Voltage Trimmer                            |
| Radio frequency interference (RFI) Suppressor Kit |
| Excitation Loss Module                            |
| Diode Failure Detector                            |
| CSA Approval                                      |

| Available With                 | MX321™ | MX341 | AS440 |
|--------------------------------|--------|-------|-------|
| Current Sensing Kit            | ✓      | ✓     | ✓     |
| Controlled Short Circuit       | ✓      | ✗     | ✗     |
| Manual Voltage Regulator       | ✓      | ✓     | ✗     |
| Frequency Detection Module     | ✓      | ✓     | ✗     |
| Power Factor Controller - PFC3 | ✓      | ✓     | ✓     |
| Remote Control Interface       | ✓      | ✓     | ✓     |
| Excitation Circuit Breaker     | ✓      | ✓     | ✓     |
| Dual AVR                       | ✓      | ✓     | ✗     |

| Voltage Regulator Options | PMG |
|---------------------------|-----|
| AS440 AVR                 | ✗   |
| MX341                     | ✓   |
| MX321™ AVR                | ✓   |
| UL AS440                  | ✗   |
| UL MX341                  | ✓   |
| No AVR                    | ✓   |

\*GA drawings are indicative of S4-G Core dimensions  
\*\*Please contact our applications department for additional voltages that are available (applications@cummins.com)





## 50Hz

| Class H 125/40 |     |            |     |            |     |            |
|----------------|-----|------------|-----|------------|-----|------------|
| Winding Number | 311 |            |     |            |     |            |
| Volts          | 380 |            | 400 |            | 415 |            |
| Model          | kW  | kVA        | kW  | kVA        | kW  | kVA        |
| S4L1S-C4       | 200 | <b>250</b> | 200 | <b>250</b> | 200 | <b>250</b> |
| S4L1S-D4       | 240 | <b>300</b> | 240 | <b>300</b> | 240 | <b>300</b> |
| S4L1S-E4       | 280 | <b>350</b> | 280 | <b>350</b> | 280 | <b>350</b> |
| S4L1S-F4       | 320 | <b>400</b> | 320 | <b>400</b> | 320 | <b>400</b> |

|                |                                                                                   |            |     |            |     |            |
|----------------|-----------------------------------------------------------------------------------|------------|-----|------------|-----|------------|
| Standby 150/40 |  |            |     |            |     |            |
| Winding Number | 311                                                                               |            |     |            |     |            |
| Volts          | 380                                                                               |            | 400 |            | 415 |            |
| Model          | kW                                                                                | kVA        | kW  | kVA        | kW  | kVA        |
| S4L1S-C4       | 216                                                                               | <b>270</b> | 216 | <b>270</b> | 216 | <b>270</b> |
| S4L1S-D4       | 256                                                                               | <b>320</b> | 256 | <b>320</b> | 256 | <b>320</b> |
| S4L1S-E4       | 296                                                                               | <b>370</b> | 296 | <b>370</b> | 296 | <b>370</b> |
| S4L1S-F4       | 332                                                                               | <b>415</b> | 344 | <b>430</b> | 344 | <b>430</b> |

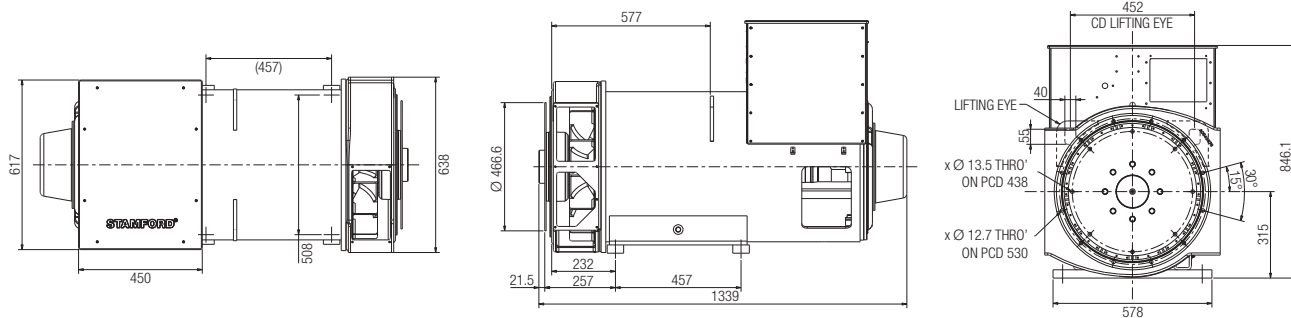
|                |     |     |     |     |     |     |
|----------------|-----|-----|-----|-----|-----|-----|
| Standby 163/27 |     |     |     |     |     |     |
| Winding Number | 311 |     |     |     |     |     |
| Volts          | 380 |     | 400 |     | 415 |     |
| Model          | kW  | kVA | kW  | kVA | kW  | kVA |
| S4L1S-C4       | 220 | 275 | 220 | 275 | 220 | 275 |
| S4L1S-D4       | 264 | 330 | 264 | 330 | 264 | 330 |
| S4L1S-E4       | 304 | 380 | 320 | 400 | 304 | 380 |
| S4L1S-F4       | 340 | 425 | 360 | 450 | 352 | 440 |

## 60Hz

| Class H 125/40 |     |     |     |     |     |     |
|----------------|-----|-----|-----|-----|-----|-----|
| Winding Number | 311 |     |     |     |     |     |
| Volts          | 416 |     | 440 |     | 480 |     |
| Model          | kW  | kVA | kW  | kVA | kW  | kVA |
| S4L1S-C4       | 230 | 288 | 240 | 300 | 252 | 315 |
| S4L1S-D4       | 275 | 344 | 288 | 360 | 300 | 375 |
| S4L1S-E4       | 320 | 400 | 336 | 420 | 352 | 440 |
| S4L1S-F4       | 364 | 455 | 384 | 480 | 400 | 500 |

| Standby 150/40 |     |     |     |     |     |     |
|----------------|-----|-----|-----|-----|-----|-----|
| Winding Number | 311 |     |     |     |     |     |
| Volts          | 416 |     | 440 |     | 480 |     |
| Model          | kW  | kVA | kW  | kVA | kW  | kVA |
| S4L1S-C4       | 240 | 300 | 256 | 320 | 268 | 335 |
| S4L1S-D4       | 292 | 365 | 308 | 385 | 320 | 400 |
| S4L1S-E4       | 336 | 420 | 356 | 445 | 368 | 460 |
| S4L1S-F4       | 388 | 485 | 412 | 515 | 428 | 535 |

| Standby 163/27 |     |     |     |     |     |     |
|----------------|-----|-----|-----|-----|-----|-----|
| Winding Number | 311 |     |     |     |     |     |
| Volts          | 416 |     | 440 |     | 480 |     |
| Model          | kW  | kVA | kW  | kVA | kW  | kVA |
| S4L1S-C4       | 248 | 310 | 264 | 330 | 276 | 345 |
| S4L1S-D4       | 300 | 375 | 316 | 395 | 332 | 415 |
| S4L1S-E4       | 348 | 435 | 364 | 455 | 380 | 475 |
| S4L1S-F4       | 400 | 500 | 424 | 530 | 440 | 550 |



# Specification

| MODEL                          | S4-Special               |
|--------------------------------|--------------------------|
| Ratings at 50Hz (kVA) Class H  | 250-400                  |
| Ratings at 60Hz (kVA) Class H  | 288-500                  |
| Specifications                 |                          |
| Voltage Range                  | 380-690                  |
| Poles                          | 4                        |
| Technology                     | Wire Wound               |
| AVR                            | Analogue                 |
| Voltage Sensing                | 2 Phase                  |
| Bearing Arrangement            | Single                   |
| SAE Adaptors                   | SAE 1                    |
| Terminals                      | 12                       |
| Material Insulation Class      | H                        |
| Excitation System              | Self Exciting            |
| Ingress Protection             | IP23                     |
| Connection with other machines | Paralleling capability   |
| Optional Features              |                          |
| Bearing Arrangement            | Double                   |
| SAE Adaptors                   | 0.5, 0, 2, 3             |
| Excitation System              | PMG                      |
| Ingress Protection             | IP23 Air Filters         |
| Output Configurations          | 1 Phase Reconnectable    |
| Voltage sensing                | 3 Phase sensing          |
| Temperature Monitoring         | Winding RTDs             |
| Temperature Monitoring         | Thermistors              |
| Environmental Protection       | Anti-Condensation Heater |
| Adaptor Feet                   | X                        |
| Flexible Feet                  | X                        |
| Prime Movers                   |                          |
| Diesel Engine                  | ✓                        |
| Gas Engine                     | ✓                        |

# Accessories

| Factory Build Options                             |
|---------------------------------------------------|
| Anti-Condensation Heater (with Terminal Box)      |
| Quadrature Droop kit                              |
| Bearing RTD (Each Bearing)                        |
| Air Inlet Filter                                  |
| Drip Proof Louvres                                |
| Remote Voltage Trimmer                            |
| Radio frequency interference (RFI) Suppressor Kit |
| Excitation Loss Module                            |
| Diode Failure Detector                            |
| CSA Approval                                      |

| Available With                 | MX321™ | MX341 | AS440 |
|--------------------------------|--------|-------|-------|
| Current Sensing Kit            | ✓      | ✓     | ✓     |
| Controlled Short Circuit       | ✓      | X     | X     |
| Manual Voltage Regulator       | ✓      | ✓     | X     |
| Frequency Detection Module     | ✓      | ✓     | X     |
| Power Factor Controller - PFC3 | ✓      | ✓     | ✓     |
| Remote Control Interface       | ✓      | ✓     | ✓     |
| Excitation Circuit Breaker     | ✓      | ✓     | ✓     |
| Dual AVR                       | ✓      | ✓     | X     |

| Voltage Regulator Options | PMG |
|---------------------------|-----|
| AS440 AVR                 | X   |
| MX341                     | ✓   |
| MX321™ AVR                | ✓   |
| UL AS440                  | X   |
| UL MX341                  | ✓   |
| No AVR                    | X   |
| No AVR                    | ✓   |

\*GA drawings are indicative of S4-F core dimensions  
\*\*Please contact our applications department for additional voltages that are available (applications@cummins.com)



# S4 Marine Ratings

50Hz

| Class B (70°C) Temperature Rise, Continuous, 50°C Ambient |     |     |     |     |     |     |
|-----------------------------------------------------------|-----|-----|-----|-----|-----|-----|
| Winding Number                                            | 311 |     |     |     |     |     |
| Volts                                                     | 380 |     | 400 |     | 415 |     |
| Model                                                     | kW  | kVA | kW  | kVA | kW  | kVA |
| S4L1M-C4                                                  | 148 | 185 | 148 | 185 | 148 | 185 |
| S4L1M-D4                                                  | 160 | 200 | 160 | 200 | 160 | 200 |
| S4L1M-E4                                                  | 192 | 240 | 192 | 240 | 192 | 240 |
| S4L1M-F4                                                  | 220 | 275 | 220 | 275 | 220 | 275 |

| Class F (90°C) Temperature Rise, Continuous, 50°C Ambient |     |     |     |     |     |     |
|-----------------------------------------------------------|-----|-----|-----|-----|-----|-----|
| Winding Number                                            | 311 |     |     |     |     |     |
| Volts                                                     | 380 |     | 400 |     | 415 |     |
| Model                                                     | kW  | kVA | kW  | kVA | kW  | kVA |
| S4L1M-C4                                                  | 168 | 210 | 168 | 210 | 168 | 210 |
| S4L1M-D4                                                  | 184 | 230 | 184 | 230 | 184 | 230 |
| S4L1M-E4                                                  | 220 | 275 | 220 | 275 | 220 | 275 |
| S4L1M-F4                                                  | 248 | 310 | 248 | 310 | 248 | 310 |

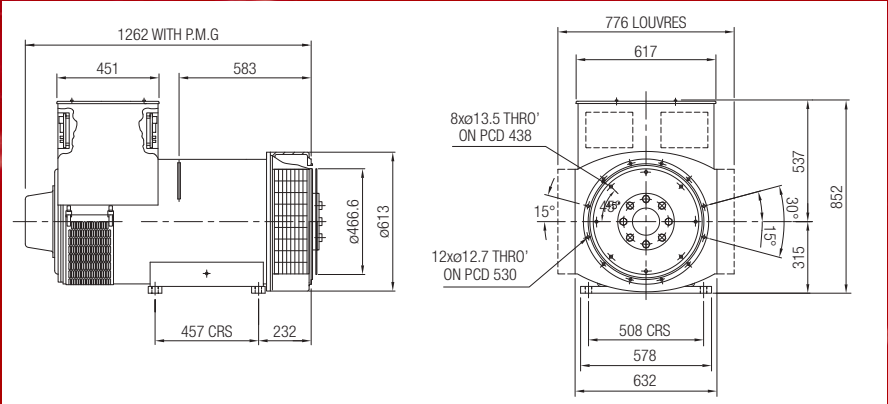
| Class H (110°C) Temperature Rise, Continuous, 50°C Ambient |     |     |     |     |     |     |
|------------------------------------------------------------|-----|-----|-----|-----|-----|-----|
| Winding Number                                             | 311 |     |     |     |     |     |
| Volts                                                      | 380 |     | 400 |     | 415 |     |
| Model                                                      | kW  | kVA | kW  | kVA | kW  | kVA |
| S4L1M-C4                                                   | 172 | 215 | 172 | 215 | 172 | 215 |
| S4L1M-D4                                                   | 192 | 240 | 192 | 240 | 192 | 240 |
| S4L1M-E4                                                   | 236 | 295 | 236 | 295 | 236 | 295 |
| S4L1M-F4                                                   | 272 | 340 | 272 | 340 | 272 | 340 |

60Hz

| Class B (70°C) Temperature Rise, Continuous, 50°C Ambient |     |     |     |     |     |     |
|-----------------------------------------------------------|-----|-----|-----|-----|-----|-----|
| Winding Number                                            | 311 |     |     |     |     |     |
| Volts                                                     | 440 |     | 460 |     | 480 |     |
| Model                                                     | kW  | kVA | kW  | kVA | kW  | kVA |
| S4L1M-C4                                                  | 172 | 215 | 176 | 220 | 180 | 225 |
| S4L1M-D4                                                  | 188 | 235 | 200 | 250 | 208 | 260 |
| S4L1M-E4                                                  | 228 | 285 | 236 | 295 | 244 | 305 |
| S4L1M-F4                                                  | 264 | 330 | 268 | 335 | 276 | 345 |

| Class F (90°C) Temperature Rise, Continuous, 50°C Ambient |     |     |     |     |     |     |
|-----------------------------------------------------------|-----|-----|-----|-----|-----|-----|
| Winding Number                                            | 311 |     |     |     |     |     |
| Volts                                                     | 440 |     | 460 |     | 480 |     |
| Model                                                     | kW  | kVA | kW  | kVA | kW  | kVA |
| S4L1M-C4                                                  | 196 | 245 | 200 | 250 | 204 | 255 |
| S4L1M-D4                                                  | 216 | 270 | 224 | 280 | 236 | 295 |
| S4L1M-E4                                                  | 260 | 325 | 272 | 340 | 276 | 345 |
| S4L1M-F4                                                  | 300 | 375 | 304 | 380 | 316 | 395 |

| Class H (110°C) Temperature Rise, Continuous, 50°C Ambient |     |     |     |     |     |     |
|------------------------------------------------------------|-----|-----|-----|-----|-----|-----|
| Winding Number                                             | 311 |     |     |     |     |     |
| Volts                                                      | 440 |     | 460 |     | 480 |     |
| Model                                                      | kW  | kVA | kW  | kVA | kW  | kVA |
| S4L1M-C4                                                   | 208 | 260 | 212 | 265 | 216 | 270 |
| S4L1M-D4                                                   | 244 | 305 | 256 | 320 | 264 | 330 |
| S4L1M-E4                                                   | 280 | 350 | 292 | 365 | 296 | 370 |
| S4L1M-F4                                                   | 324 | 405 | 332 | 415 | 340 | 425 |





## Specification

| MODEL                          | S4-Marine                |
|--------------------------------|--------------------------|
| Ratings at 50Hz (kVA) Class H  | 200-340                  |
| Ratings at 60Hz (kVA) Class H  | 235-440                  |
| Specifications                 |                          |
| Voltage Range                  | 380-690                  |
| Poles                          | 4                        |
| Technology                     | Wire Wound               |
| AVR                            | Analogue                 |
| Voltage Sensing                | 2 Phase                  |
| Bearing Arrangement            | Single                   |
| SAE Adaptors                   | SAE 1                    |
| Terminals                      | 12                       |
| Material Insulation Class      | H                        |
| Excitation System              | Self Exciting            |
| Ingress Protection             | IP23                     |
| Connection with other machines | Paralleling capability   |
| Optional Features              |                          |
| Bearing Arrangement            | Double                   |
| SAE Adaptors                   | 0.5, 0, 2, 3             |
| Excitation System              | PMG                      |
| Ingress Protection             | IP23 Air Filters         |
| Output Configurations          | 1 Phase Reconnectable    |
| Voltage sensing                | 3 Phase sensing          |
| Temperature Monitoring         | Winding RTDs             |
| Temperature Monitoring         | Thermistors              |
| Environmental Protection       | Anti-Condensation Heater |
| Adaptor Feet                   | X                        |
| Flexible Feet                  | X                        |
| Prime Movers                   |                          |
| Diesel Engine                  | ✓                        |
| Gas Engine                     | ✓                        |

## Accessories

| Factory Build Options                             |
|---------------------------------------------------|
| Anti-Condensation Heater (with Terminal Box)      |
| Quadrature Droop kit                              |
| Bearing RTD (Each Bearing)                        |
| Air Inlet Filter                                  |
| Drip Proof Louvres                                |
| Remote Voltage Trimmer                            |
| Radio frequency interference (RFI) Suppressor Kit |
| Excitation Loss Module                            |
| Diode Failure Detector                            |
| CSA Approval                                      |

| Available With                 | MX321™ | MX341 |
|--------------------------------|--------|-------|
| Current Sensing Kit            | ✓      | ✓     |
| Controlled Short Circuit       | ✓      | X     |
| Manual Voltage Regulator       | ✓      | ✓     |
| Frequency Detection Module     | ✓      | ✓     |
| Power Factor Controller - PFC3 | ✓      | ✓     |
| Remote Control Interface       | ✓      | ✓     |
| Excitation Circuit Breaker     | ✓      | ✓     |
| Dual AVR                       | ✓      | ✓     |

| Voltage Regulator Options | PMG |
|---------------------------|-----|
| MX341                     | ✓   |
| MX321™ AVR                | ✓   |
| UL MX341                  | ✓   |
| No AVR                    | ✓   |

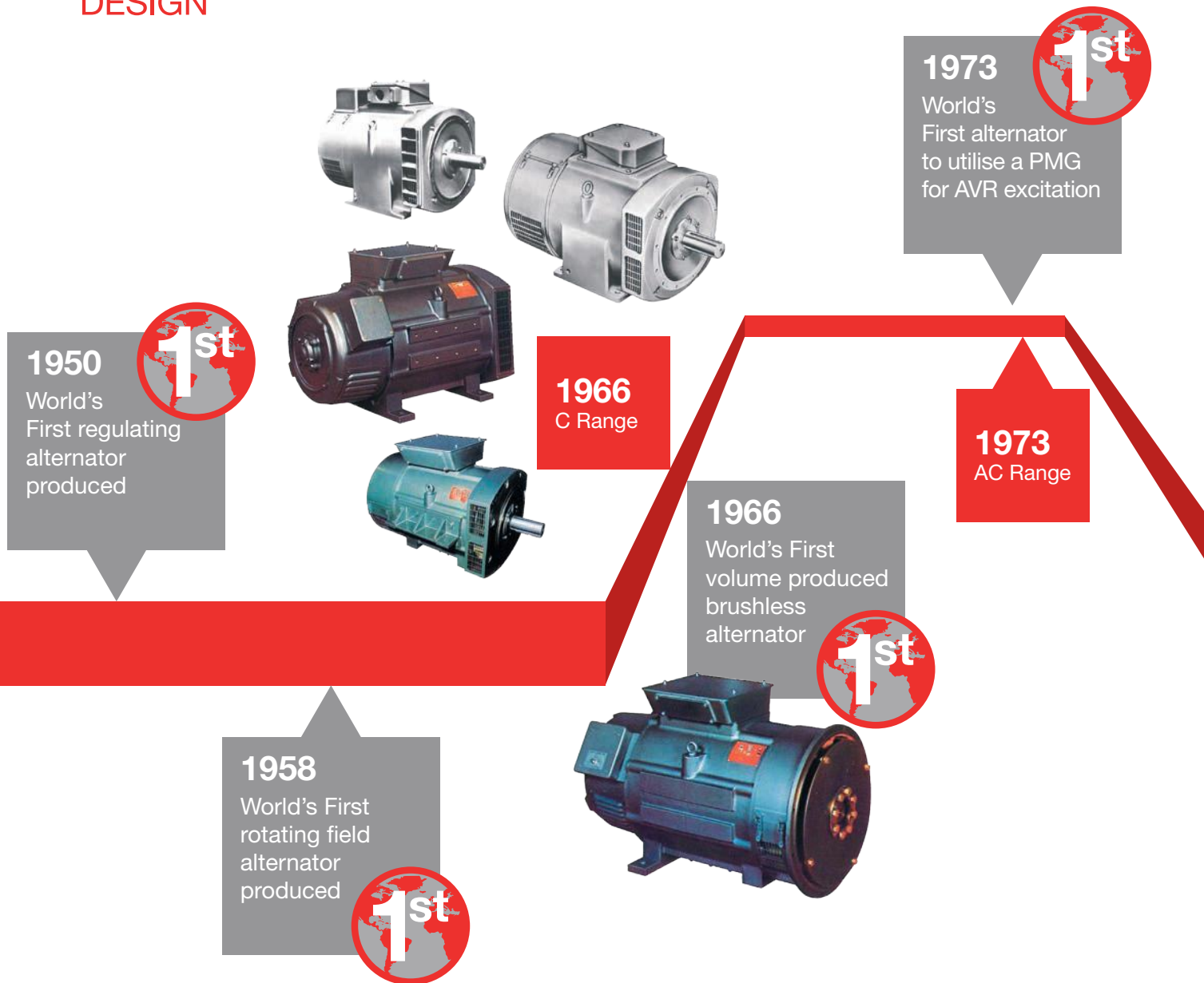
\*GA drawings are indicative of S4-F core dimensions

\*\*Please contact our applications department for additional voltages that are available (applications@cummins.com)

**3 YEAR  
WARRANTY**



## PRODUCT HERITAGE





**1988**  
UC Range



**2004**  
P7 Range



**2007**  
P0/P1  
Range



**2016**  
S Range



**2019**  
S7 Range



**2016**  
S0/S1  
Range



**2017**  
S6 Range



**2019**  
S9 Range



**1985**  
HC Range



**1992**  
BC Range

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